1.    A method operative to provide paged party location information in information made available to user equipment of a paging party, the method comprising:

receiving a call request from the paging party;

extracting paged party identification information from the call request;

determining that the paged party subscribes to location service based on the extracted called party identification information;

determining a location of the paged party; and

transmitting a message including a description of the location to the user equipment of the paging party.

2.    The method of claim 1 wherein determining that the paged party subscribes to the location service comprises:

accessing user subscription information of a subscriber database of the paged party.

3.    The method of claim 1 wherein determining the location of the paged party comprises:

determining that the user equipment of the paged party includes a GPS receiver; and

requesting GPS coordinates from the user equipment of the paged party.

4.    The method of claim 1 wherein determining the location of the paged party comprises:

determining that the user equipment of the paged party does not include a GPS receiver; and

requesting coordinates of the paged party user equipment from a reference cell cite of the user equipment of the paged party.

5.    The method of claim 1 wherein determining the location of the paged party comprises:

determining that the user equipment of the paged party does not include a GPS receiver; and

requesting coordinates of the user equipment of the paged party be determined by cellular triangulation.

6.     The method of claim 4 further comprising:

transmitting a first PSMM_Request message from a first cell site to the user equipment of the paged party;

receiving a first response to the first PSMM_Request message;

determining a first delay from the first response;

transmitting a second PSMM_Request message from a second cell site to the user equipment of the paged party;

receiving a second response to the second PSMM_Request message;

determining a second delay from the second response;

transmitting a third PSMM_Request message from a third cell site to the user equipment of the paged party;

receiving a third response to the third PSMM_Request message;

determining a third delay from the third response; and,

determining a relative position of the user equipment of the paged party to the first, second and third cell sites based on the first, second and third delays.

7.     The method of claim 4 further comprising:

transmitting a plurality of PSMM_Request messages from a plurality of cell sites to the user equipment of the paged party;

receiving a plurality of responses to the plurality of PSMM_Request messages;

determining a plurality of delays from the plurality of responses; and,

determining a relative position of the user equipment of the paged party to the plurality of cell sites from the plurality of delays.

8.     The method of claim 6 further comprising:

calculating an absolute position of the user equipment of the paged party from the relative position of the user equipment and known positions of the first second and third cell sites.

9.     The method of claim 7 further comprising:

calculating an absolute position of the user equipment of the paged party from the relative position of the user equipment and known positions of the plurality of cell sites.

5       10.    The method of claim 3 further comprising:

determining a common description of the location of the paged party.

11.    The method of claim 10 wherein determining the common description comprises:

10               receiving the GPS coordinates; and

using the GPS coordinates as an index into a common location description database to determine at least one of an address, a city name, and a distance and heading from a landmark.

15       12.    The method of claim 4 further comprising:

determining a common description of the location of the paged party.

13.    The method of claim 12 wherein determining the common description comprises:

20               receiving the coordinates; and

using the coordinates as an index into a common location description database to determine at least one of an address, a city name, and a distance and heading from a landmark.

25       14.    The method of claim 1 further comprising :

verifying that the paging party is included in a list of potential paging parties to which the paged party location information is to be provided.

15.    A method operative to provide paged party location information to user
30    equipment of a paging party, the method comprising:

receiving a call request from the paging party;

extracting paged party identification information from the call request;

determining that the paged party subscribes to a location service based on the extracted paged party identification information;

determining if the user equipment of the paged party is GPS enabled;

requesting GPS coordinates from the user equipment of the paged party if the user equipment of the calling party is GPS enabled;

requesting cellular triangulation services be used to generate location information regarding the user equipment of the paged party if the user equipment of the paged party is not GPS enabled;

determining a common description of a location of the paged party based on the GPS coordinates or the generated location information;

including a representation of the common description of the location in a field of a message; and

transmitting the message to the user equipment of the paging party.


16.     The method of claim 15 further comprising:

extracting paging party user equipment identification information from the call request;

retrieving a list of potential paging party user equipment for which the paged party desires to provided location information;

comparing the extracted paging party user equipment identification information to entries in the list of potential paging party user equipment; and

determining that one of the entries in the list matches the extracted paging party user equipment identification information.


17.     The method of claim 15 wherein determining that the paged party subscribes to a location service based on the extracted paged party identification information comprises:

querying a subscriber database associated with the paged party; and

retrieving location feature subscription information regarding the paged party.


18.     The method of claim 15 wherein determining if the user equipment of the paged party is GPS enabled comprises:

extracting paged party user equipment identification information from the call request;

retrieving a list of potential paging party user equipment to which the

paged party location information is to be provided; and,

retrieving GPS enablement status information regarding the paged party user equipment.

5     19.     The method of claim 15 wherein determining if the user equipment of the paged party is GPS enabled comprises:

sending a GPS enablement query message to the user equipment of the paged party.

10     20.     The method of claim 15 wherein requesting cellular triangulation services comprises:

transmitting a plurality of PSMM data collection messages to a respective plurality of cell sites within range of the user equipment of the paged party.

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21.     A system operative to provide paged party location information to user equipment of a paging party, the system comprising:

means for receiving a page request from the paging party;

means for extracting paged party identification information from the

20     page request;

means for determining that the paged party subscribes to a location service based on the extracted paged party identification information;

means for determining a location of the paged party;

means for including a description of the location of the paged party in a

25     message; and

means for transmitting the message including the description of the location to the user equipment of the paging party.

22.     The system of claim 19 wherein the means for determining that the

30     paged party subscribes to the location service comprises:

means for accessing user subscription information of a subscriber database of the paged party.

23.     The system of claim 19 wherein the means for determining a location

of the paged party comprises:

means for determining that the user equipment of the paged party includes a GPS receiver; and

means for requesting GPS coordinates from the user equipment of the

5    paged party.


24.    The system of claim 19 wherein the means for determining a location of the paged party comprises:

means for determining that the user equipment of the paged party does

10    not include a GPS receiver; and

means for requesting coordinates of the paged party user equipment from a reference cell cite of the user equipment of the paged party.


25.    The system of claim 19 wherein the means for determining a location

15    of the paged party comprises:

means for determining that the user equipment of the paged party does not include a GPS receiver; and

means for requesting coordinates of the paged party user equipment be determined by cellular triangulation.

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26.    The system of claim 24 further comprising:

means for transmitting a first PSMM_Request message from a first cell site to the user equipment of the paged party;

means for receiving a first response to the first PSMM_Request

25    message;

means for determining a first delay from the first response;

means for transmitting a second PSMM_Request message from a second cell site to the user equipment of the paged party;

means for receiving a second response to the second PSMM_Request

30    message;

means for determining a second delay from the second response;

means for transmitting a third PSMM_Request message from a third cell site to the user equipment of the paged party;

means for receiving a third response to the third PSMM_Request

message;

means for determining a third delay from the third response; and,

means for determining a relative position of the user equipment of the paged party to the first, second and third cell sites based on the first, second and third delays.

27. The system of claim 24 further comprising:

means for transmitting a plurality of PSMM_Request messages from a plurality of cell sites to the user equipment of the paged party;

means for receiving a plurality of responses to the plurality of PSMM_Request messages;

means for determining a plurality of delays from the plurality of responses; and,

means for determining a relative position of the user equipment of the paged party to the plurality of cell sites from the plurality of delays.

28. The system of claim 24 further comprising:

means for calculating an absolute position of the user equipment of the paged party from the relative position of the user equipment of the paged party and known positions of the first, second and third cell sites.

29. The system of claim 25 further comprising:

means for calculating an absolute position of the user equipment of the paged party from the relative position of the user equipment and known positions of the plurality of cell sites.

30. The system of claim 21 wherein the means for determining a description of a location of the calling party comprises:

means for receiving the GPS coordinates; and

means for using the GPS coordinates as an index into a common location description database to determine at least one of an address, a city name, and a distance and heading from a landmark.

31. The system of claim 21 wherein the means for determining a

description of a location of the calling party comprises:

means for receiving the coordinates; and

means for using the coordinates as an index into a common location description database to determine at least one of an address, a city name, and a

5   distance and heading from a landmark.

32.   The system of claim 21 further comprising:

means for verifying that the paging party is included in a list of potential paging parties for which the paged party location information is to be provided.

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33.   A mobile switching center operative to provide paged party location information to user equipment of a paging party, the mobile switching center comprising:

a coordinate determiner operative to determine geographic coordinates

15   of user equipment of a paged party;

a coordinate converter operative to determine a common description of a geographic location associated with the geographic coordinates determined by the coordinate determiner; and,

a network interface operative to transmit the common description to the

20   user equipment of the paging party.

34.   The mobile switching center of claim 33 wherein the coordinate determiner comprise:

a GPS coordinate determiner operative to send a request for GPS

25   coordinates to the user equipment of the paged party and receive GPS coordinates from the user equipment of the paged party.

35.   The mobile switching center of claim 33 wherein the coordinate determiner comprise:

30   a cellular triangulator operative to coordinate the collection of measurements associated with the user equipment of the paged party and the calculation of geographic coordinates associated with the location of the user equipment of the paged party based on the collected measurements.

36.  The mobile switching center of claim 33 wherein the cellular triangulator is operative to collect the measurements associated with the user equipment through the transmission of a plurality of PSMM_Request messages.